

What Is Claimed Is:

1. A control unit including a processor (2) and at least one inertial sensor (3, 4) in a housing (1), a data transmission between the processor (2) and the at least one sensor (3, 4) being configured in such a way that the data transmission is digital.
2. The control unit as recited in Claim 1,
wherein a serial synchronous interface is provided for the data transmission.
3. The control unit as recited in Claim 1 or 2,
wherein the data transmission is configured in such a way that the transmitted data has at least one error bit and at least one status bit.
4. The control unit as recited in one of the preceding claims,
wherein the data transmission is configured to be bidirectional.
5. The control unit as recited in one of the preceding claims,
wherein the data transmission is configured for triggering a sensor test.
6. The control unit as recited in one of the preceding claims,
wherein the data transmission is configured for triggering an offset regulation of the at least one inertial sensor (3, 4).
7. The control unit as recited in one of the preceding claims,
wherein four lines (5 through 9) are provided for the data transmission, one of the lines being provided for selecting the at least one inertial sensor.
8. The control unit as recited in one of the preceding claims,
wherein the at least one sensor (3, 4) has a multi-channel design.
9. The control unit as recited in one of the preceding claims,
wherein the data transmission is configured for triggering a switch-over from one operating state to another operating state of the at least one inertial sensor (3, 4).

10. Use of the control unit, as recited in one of Claims 1 through 9, in a restraint system.
11. Use of the control unit, as recited in one of Claims 1 through 9, in a vehicle dynamics control system.
12. Use of the control unit, as recited in one of Claims 1 through 9, in a sensor box or a sensor cluster.
13. Use of the control unit, as recited in one of Claims 1 through 9, in a vehicle navigation system.